



## PATENT ABSTRACTS OF JAPAN

(11)Publication number:

10-010494

(43) Date of publication of application: 16.01.1998

(51)Int.Cl.

G02F 1/133 G02F 1/1333

G02F 1/136

(21)Application number: 08-163269

(71)Applicant: HITACHI LTD

HITACHI DEVICE ENG CO LTD

(22)Date of filing:

24.06.1996

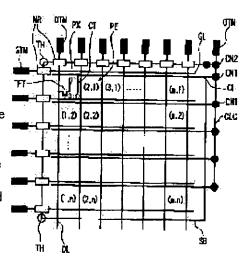
(72)Inventor: HIROSHIMA MINORU

ISODA TAKASHI NAKANO YASUSHI

## (54) LIQUID CRYSTAL DISPLAY DEVICE

## (57)Abstract:

PROBLEM TO BE SOLVED: To provide a liquid crystal display device which has a high anti-static effect in a liquid crystal display device of horizontal electric field mode by forming an anti-static circuit which absorbs static electricity promptly. SOLUTION: This device changes the optical transmittance of a liquid crystal layer by an electric field component generated roughly parallelly to an active matrix substrate between a pixel electrode PX formed for each pixel PE and the counter electrode CT on the acive matrix substrate. In this case, a common connecting line CLC which is placed outside the display region and electrically connects each counter electrode connecting line CL connecting counter electrodes CT and a frame-shaped shortcircuit line SB which connects each scan signal line GL and each video signal line DL respectively through non-linear resistance element NR are formed on the above surface and the shortcircuit line SB is electrically connected to the common connecting line CLC.



## **LEGAL STATUS**

[Date of request for examination]

18.04.2001

Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

3313282

[Date of registration]

31.05.2002

[Number of appeal against examiner's decision of rejection

[Date of requesting appeal against examiner's decision of rejection]